



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,375	01/05/2004	Robert P. Benjey	03-ASD-186 (GT)	2642

200 7590 11/30/2004

EATON CORPORATION
EATON CENTER
1111 SUPERIOR AVENUE
CLEVELAND, OH 44114

EXAMINER

SELLS, JAMES D

ART UNIT	PAPER NUMBER
----------	--------------

1734

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/751,375

Applicant(s)

BENJEY ET AL.

Examiner

James Sells

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 12, 13 and 21 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Benjey et al (US Patent 6,484,741).

Benjey discloses a fuel tank vent valve and a method of making it. As shown in Fig. 1, the valve assembly 10 (applicant's claimed body member) is positioned in opening 12 of the top wall 14 of a fuel tank. The valve assembly comprises upper portion 20, flange 40, groove 42, annular member 46 (applicant's claimed annular adaptor), over mold 48 with flange 50 (applicant's claimed annular mounting member) weldable to the tank by hot-plate welding (see col. 3, lines 28-32). Seal ring 44 bonds the annular member to the over mold in the manner claimed by the applicant.

At col. 1, lines 46-50, Benjey discloses that the materials suitable for fabricating the valve body and float are non-weldable to the HDPE material of the fuel tank. At col. 2, lines 27-33, Benjey discloses that the over mold 48 is formed of high density polyethylene (HDPE) and that the valve body is formed of aliphatic polyketone,

Art Unit: 1734

polythalamine, polyamide, acetate, polyester, polyphenylene sulphide or glass filled polyamide.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-11, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benjey et al as described above in paragraph 2 in view of DeCapua et al (US Patent 6,422,261).

DeCapua discloses a weldable mount for a fuel system component. As shown in Fig. 11, apparatus 410 is welded to fuel tank 11 by spin welding (see col. 5, lines 56-58). At col. 5, lines 64-67, DeCapua teaches that this spin welding technique is equivalent to hot plate welding or adhesive bonding.

Regarding claims 2 and 18, it would have been obvious to one having ordinary skill in the art to substitute spin welding, as taught by DeCapua, for the hot plate welding disclosed by Benjey because DeCapua teaches spin welding and hot plate welding are functionally equivalent alternate expedients in the art.

Regarding claims 3-4, 8-11, 16-17 and 19-20 it is the examiner's position that the specific materials used, (i.e. unreinforced polyamide, Maleic anhydride) are well known

Art Unit: 1734

and conventional in the art and would have been obvious to employ in the system of Benjey based on desirable physical properties of such materials.

Regarding claim 5, employing tapered surfaces inherently improves alignment of the work pieces during spin welding operations. For this reason, it would have been obvious to one having ordinary skill in the art to employ tapered surfaces in the system of Benjey in view of DeCapua as described above.

Regarding claims 6-7 and 14-15, it is the examiner's position that overmolding and two-shot molding are well known and conventional in the art and would have been obvious to employ in the system of Benjey based on desirable physical characteristics of the bonding techniques.

Claim Objections

5. Claim 16 is objected to because of the following informalities:

Claim 16, line 4, "Maleic anhydride, balance HDPE" should be changed to -- Maleic anhydride balance HDPE --.

Appropriate correction is required.

References

6. References C-F are cited as prior art of interest.

Art Unit: 1734

Telephone/Fax

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sells whose telephone number is (571) 272-1237. The examiner can normally be reached on Monday-Friday between 9:30 AM and 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached at (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

A handwritten signature in black ink, appearing to read 'JS', with a horizontal line underneath.

**JAMES SELLS
PRIMARY EXAMINER
TECH. CENTER 1700**